Amendments to the Claims

A listing of the entire set of pending claims (including amendments to the claims) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions and listings of claims in the application.

1.(currently amended) A method of operating a wireless communication system comprising a primary station and a plurality of secondary stations, the method comprising:

the primary station exchanging radio messages with the secondary stations over a number of radio channels in accordance with a predetermined protocol,

monitoring the capacity of said channels;

controlling registration of at least one secondary station to a channel at least in part in dependence on said monitored capacity of said channels,

wherein the monitoring of channel capacity comprises:

monitoring the number of time slots available per frame time for that channel,

comparing the number of secondary stations registered per channel against a predetermined threshold, and

blocking registration for those channels having a number of secondary stations registered per channel equal to or above the predetermined threshold.

2.(cancelled)

3.(previously presented) A method according to claim 1, wherein a monitored channel having the lowest number of registered secondary stations is used to register an enquiring secondary station.

4.(previously presented) A method according to claim 1, wherein beacon signals are transmitted on each radio channel, and wherein the capacity of each channel is monitored by monitoring the number of time slots available per frame time for that channel.

5.(previously presented) A method according to claim 4, wherein an enquiring secondary station requesting guaranteed time slots is allocated a radio channel having available unused timeslots for said request.

6.(currently amended) A wireless communication system comprising a primary station and a plurality of secondary stations, wherein the primary station has means for exchanging radio messages with the secondary stations over a number of radio channels in accordance with a predetermined protocol, means for monitoring the capacity of said channels and means for controlling the channel used by at least one enquiring secondary station to a channel at least in part in dependence on said monitored capacity of said channels, wherein the means for monitoring the capacity comprise means for monitoring available timeslots per frame time on respective channels, means for comparing the number of secondary stations registered per channel against a predetermined threshold and means for blocking registration for those channels having a number of secondary stations registered per channel equal to or above the predetermined threshold.

7.(currently amended) A primary station for use in a wireless communications system comprising a plurality of secondary stations, wherein the primary station has means for exchanging radio messages with the secondary stations over a number of radio channels in accordance with a predetermined protocol, means for monitoring the capacity of said channels, and means for controlling the channel used by of at least one enquiring secondary station to a channel at least in part in dependence on said monitored capacity of said channels, wherein the means for monitoring the capacity comprise means for monitoring available timeslots per frame time on respective channels, means for comparing the number of secondary stations registered per channel against a predetermined threshold and means for blocking registration for those channels having a number of secondary stations registered per channel equal to or above the predetermined threshold.

8.(previously presented) A primary station as claimed in claim 7, wherein the means for exchanging radio messages comprises a communication module having a plurality of transceivers coupled to said monitoring and control means, and wherein each transceiver operates a single radio channel.

9. (currently amended) A primary station as claimed in claim 7, wherein the ~~monitoring~~ means for monitoring the capacity monitors available timeslots between periodic beacon signals transmitted by transceivers on respective channels, and wherein the control means allocates a radio channel having available unused timeslots to at least one enquiring secondary station.

10.(previously presented) A primary station as claimed in claim 7, wherein the predetermined protocol is the ZigBee radio protocol.

11.(previously presented) A computer readable medium encoded with a computer program that when executed on a programmable device causes the programmable device to carry out the steps of claim 1.

12.(cancelled)

13.(previously presented) A processor controlled by a computer program that when executed causes the processor to carry out the steps of claim 1.

14.(cancelled)

15.(previously presented) The primary station of claim 7 operating a plurality of ZigBee piconets simultaneously in the same location, each piconet operating on a separate radio channel, wherein the means for monitoring includes a microprocessor to obtain information about each piconet and monitor a number of members of each piconet, and which radio channels are in use.